REMARKS

Applicant is in receipt of the Office Action mailed May 12, 2004. Claims 38-40, 44 and 45 have been allowed. Claims 1, 12, 18, 21, 31, 41, and 43 have been amended. Claims 1-37 and 41-43 are pending in the application. Further consideration of the present case is earnestly requested in light of the following remarks.

Section 102 Rejection

Claims 1, 2, 4, 5, 9, 12, 13, 15, 18, 19, 21, 22, 25, 28, 31, 32, 41, and 42 stand rejected under 35 U.S.C. 102(e) as being anticipated by Coyle (U.S. Patent No. 6,502,051). Coyle discloses testing of an electronic system that is optimized by using a single set of sub-tests and varying the testing sequence to produce tests tailored for different purposes such as screening and diagnostic testing. In particular, Coyle discloses a plurality of testers, each of which performs a predetermined sub-test on the electronic equipment and a test selector which responds to a value of a test selection variable by controlling the plurality of testers to perform sub-tests on the electronic equipment in a first predetermined order.

As the Examiner is certainly aware, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 1

Amended claim 1 recites:

"A computer-implemented method for testing a sub-component of a system comprising a hierarchy of sub-components organized in multiple levels, the method comprising:

creating a plurality of test executive sequences in response to user input, wherein each test executive sequence maps to a sub-component of the system and is operable to test the respective sub-component, wherein the plurality of test

executive sequences are configured to execute according to a hierarchy corresponding to the hierarchy of sub-components, wherein the hierarchy of subcomponents comprises a top level and a first level, wherein the first level is lower in the hierarchy than the top level;

    calling a first test executive sequence to test a first sub-component of the first level in the hierarchy, wherein the first level in the hierarchy corresponds to only a subset of the plurality of test executive sequences;

    executing the first test executive sequence without executing test executive sequences that map to sub-components above the first sub-component in the hierarchy;

    wherein said executing the first test executive sequence tests the first sub-component."

The Office Action argues that the diagnostic test of Coyle corresponds to the first sub-component of the first level in the hierarchy of claim 1. Applicant respectfully disagrees. Applicant has amended claim 1 to further distinguish the claimed matter from the system of Coyle.

The amended claim 1 now states that "the hierarchy of subcomponents comprises a top level and a first level, wherein the first level is lower in the hierarchy than the top level." Furthermore, claim 1 states that the first level in the hierarchy corresponds to only a subset of the plurality of test executive sequences. In contrast, Coyle teaches executing one of two test sequences that comprise a plurality of sub-tests. The system of Coyle can only arrange all of the sub-tests in a different order. Coyle does not teach or suggest executing the first test executive sequence without executing test executive sequences that map to sub-components above the first sub-component in the hierarchy as claimed in claim 1.

As seen in Figure 2 of Coyle, the first test 200 is a testing sequence that performs the subtests from the first sub-test 206 to the fourth sub-test 212. The second test 202 of Coyle is a testing sequence that performs the subtests from the fourth sub-test 218 to the first sub-test 224. Figure 3 of Coyle and its corresponding description disclose that the test selection is operable to choose one of the two tests, i.e., a screening test sequence or a diagnostic test sequence. Coyle only teaches executing all of the sub-tests in a different order:

> "In a preferred embodiment, the same sub-tests are run for the diagnostic test 202, but in a sequence different than the sequence used for the screening test 200. For example, diagnostic test routine 202 might perform the same four subtests used in

the screening routine 200, but in the reverse order. In particular, the routine starts in step 216 and sub-tests 218-224 are performed in the order sub-test 4, sub-test 3, sub-test 2 and sub-test 1. The test then finishes in step 226. The diagnostic test is designed and sequenced in a conventional manner and tests small portions of the hardware first and then works up to the full system. It is designed to aid in the debug of problems and to isolate the errors at the earliest possible time and at the lowest system level so that the errors can be understood and eliminated. Although the diagnostic test 202 is shown running the four subtests in the opposite order from the manufacturing screening test 200, other orders would be possible and known to those skilled in the art. Running the tests in the reverse order allows the tests to start with basic hardware sub-systems and to sequentially test more complex hardware using hardware that has already tested good in previous sub-tests. In this manner each sub-test builds upon the results of previous sub-tests." (Coyle col. 4 line 48 – col. 5 line 3)

Coyle does not teach or suggest executing a first test executive sequence that corresponds to the first level of the hierarchy, where the first level in the hierarchy corresponds to only a subset of the plurality of test executive sequences, where the wherein the first level is lower in the hierarchy than the top level.

Therefore, for at least the reason stated above, Applicant submits that Coyle does not teach, suggest, or render obvious all of the features and the limitations of the independent claim 1. Furthermore, similar arguments apply to equal force to independent claims 12, 18, 21, 31, 41, and 43. Applicant thus respectfully submits that each of the independent claims 1, 12, 18, 21, 31, 41, and 43, and claims dependent thereon, are patentably distinct over the cited art, and are thus allowable. Thus removal of the section §102 rejection of claims 1, 2, 4, 5, 9, 12, 13, 15, 18, 19, 21, 22, 25, 28, 31, 32, 41, and 42 is respectfully requested.

Section 103 Rejection

Claims 8, 10, 27, 29, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coyle (U.S. Patent No. 6,502,051) in view of Sivakumar et al. (U.S. Patent No.6,219,829). Since the independent claims 1, 12, 18, and 21 have been shown to be patentably distinct, a further discussion of the dependent claims 8, 10, 27, and 29 is not necessary at this time. Independent claim 43 was amended to more fully characterize the claimed invention.

As held by the U.S. Court of Appeals for the Federal Circuit in Ecolochem Inc. v. Southern California Edison Co., an obviousness claim that lacks evidence of a suggestion or motivation for one of skill in the art to combine prior art references to produce the claimed invention is defective as hindsight analysis.

In addition, the showing of a suggestion, teaching, or motivation to combine prior teachings "must be clear and particular . . .. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence'." *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). The art must fairly teach or suggest to one to make the specific combination as claimed. That one achieves an improved result by making such a combination is no more than hindsight without an initial suggestion to make the combination.

Claim 43

Amended claim 43 recites:

"A method for testing a portion of a hierarchical system, the method comprising:
    displaying a hierarchical view of a test executive sequence hierarchy, wherein the test executive sequence hierarchy comprises a top level and a first level, wherein the first level is lower in the hierarchy than the top level;
    receiving user input specifying the first displayed test executive sequence, wherein the first level comprises the first displayed test executive sequence;
executing the first test executive sequence in response to the user input;
    wherein said executing the first test executive sequence does not include executing test executive sequences above the first test executive sequence in the hierarchy;
    wherein said executing the first test executive sequence comprises testing the portion of the hierarchical system."

Applicant respectfully submits that for at least the reason stated above with reference to discussion of claim 1, Coyle does not teach or suggest all of the features and the limitations of the independent claim 43. Furthermore, Sivakumar teaches a hierarchy of tests that is created and stored in on a computer based on input data received through an input device of the computer and where the tests include test classes and test cases, and where the test hierarchy can be displayed in a graphical user interface. However, Sivakumar does not teach or suggest the other features and limitations of the independent

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claim 43. Thus, Applicant respectfully submits that neither Coyle, nor Sivakumar, either singly or together, teach or suggest the limitations of claim 43.

Thus removal of the section §103 rejection of claims 8, 10, 27, 29, and 43 is respectfully requested.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-50000/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

Respectfully submitted,

Jeffrey C. Hood
Reg. No. 35,198
ATTORNEY FOR APPLICANT(S)

Meyertons, Hood, Kivlin, Kowert & Goetzel PC
P.O. Box 398
Austin, TX 78767-0398
Phone: (512) 853-8800
Date: ___9/12/2004___ JCH/MRW